

# FAX

Phone 312-886-4071

CC:

Date 1/24/00

Number of pages including cover sheet *15*

TO: Lois Betka  
USEPA

*SM-5J*

FROM: Nile Fellows  
MPCA  
520 Lafayette Drive  
St. Paul, MN. 55155

Phone 651-296-7299

Fax Phone 651-296-9707

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Attached are draft copies of the Fridley Park Commons Well field. Please review and let me know if you need any additional information. If not, I can get this finalized and sent down to you.

This is coming in two packages because of the size.

My Supervisor Doug Wetzstein will be in Chicago tomorrow for meetings so feel free to contact him directly with comments.

If you have any questions please call me at 651-296-7299.

US EPA RECORDS CENTER REGION 5



412776

928652

PAGE REDACTED DUE TO EXEMPTION 4

# APPLICATION FOR FEDERAL ASSISTANCE

## 1. TYPE OF SUBMISSION:

## Application

☐ Construction  
☒ Non-Construction

## Preapplication

☐ Construction  
☐ Non-Construction

## 2. DATE SUBMITTED

Applicant Identifier

## 3. DATE RECEIVED BY STATE

State Application Identifier

## 4. DATE RECEIVED BY FEDERAL AGENCY

Federal Identifier  
V005794-02

## 5. APPLICANT INFORMATION

## Legal Name:

Minnesota Pollution Control Agency

## Organizational Unit:

Metro District, Remediation Section

## Address (give city, county, state and zip code):

520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

## Name and telephone number of the person to be contacted on matters involving this application (give area code)

John Allen (651) 297-5198

## 6. EMPLOYER IDENTIFICATION NUMBER (EIN):

4 1 - 6 0 0 7 1 6 2

## 8. TYPE OF APPLICATION:

☐ New ☐ Continuation ☒ Revision

If Revision, enter appropriate letter(s) in box(es):

A. Increase Award B. Decrease Award C. Increase Duration

D. Decrease Duration Other (specify):

New Funds

## 7. TYPE OF APPLICANT: (enter appropriate letter in box)

A

- A. State H. Independent School Dist.  
B. County I. State Controlled Institution of Higher Learning  
C. Municipal J. Private University  
D. Township K. Indian Tribe  
E. Interstate L. Individual  
F. Intermunicipal M. Profit Organization  
G. Special District N. Other (Specify):

## 9. NAME OF FEDERAL AGENCY:

U.S. Environmental Protection Agency

## 10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:

6 6 - 8 0 2

TITLE: Hazardous Substance Response Fund

## 11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

Amendment to Multi-Site, Multi-Activity Cooperative Agreement for Comprehensive Environmental Response Compensation and Liability Act (as amended) Activities

## 12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.):

St. Paul and Fridley, Minnesota

## 13. PROPOSED PROJECT:

Start Date  
Date of Award

Ending Date  
3/31/2001

## 14. CONGRESSIONAL DISTRICTS OF:

a. Applicant  
Minnesota Pollution Control Agency

## b. Project

Fridley Commons Park Well Field, Fridley, Minnesota

## 15. ESTIMATED FUNDING:

a. Federal	\$ 415,757.00
b. Applicant	\$
c. State	\$ 0.00
d. Local	\$
e. Other	\$
f. Program Income	\$
g. Total	\$ 415,757.00

## 16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES: THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE

b. NO: ☐ PROGRAM IS NOT COVERED BY E.O. 12372

☒ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

## 17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation.

☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED

a. Typed Name of Authorized Representative  
Timothy K. Scherkenbach

b. Title  
Division Manager

c. Telephone number  
(651) 297-8502

d. Signature of Authorized Representative

e. Date Signed

**BUDGET INFORMATION — Non-Construction Programs**

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Totals</b>		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SECTION B - BUDGET CATEGORIES						
Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				TOTAL	
	(1) Friction Commons New budget	(2)	(3)	(4) Latest Grant Award	(5)	
a. Personnel	\$32,208.00	\$0.00	\$0.00	\$2,199,343.00	\$2,231,551.00	
b. Fringe Benefits	\$13,778.00	\$0.00	\$0.00	\$509,667.00	\$523,445.00	
c. Travel	\$935.00	\$0.00	\$0.00	\$144,721.00	\$145,656.00	
d. Equipment	\$0.00	\$0.00	\$0.00	\$91,292.00	\$91,292.00	
e. Supplies	\$2,500.00	\$0.00	\$0.00	\$25,417.00	\$27,917.00	
f. Contractual	(\$350,000.00)	\$0.00	\$0.00	\$14,487,448.00	\$14,137,448.00	
g. Construction	\$0.00	\$0.00	\$0.00	\$17,075,090.00	\$17,075,090.00	
h. Other	\$3,000.00	\$0.00	\$0.00	\$276,177.00	\$279,177.00	
i. Total Direct Charges (sum of 6a - 6h)	(\$297,579.00)	\$0.00	\$0.00	\$34,809,155.00	\$34,511,576.00	
j. Indirect Charges	\$13,336.00	\$0.00	\$0.00	\$915,605.00	\$928,941.00	
k. Totals (sum of 6i and 6j)	(\$284,243.00)	\$0.00	\$0.00	\$35,724,760.00	\$35,440,517.00	
Program Income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

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Standard Form 424A (4-88)  
Prescribed by OMB Circular A-102

**APPLICATION FOR FEDERAL ASSISTANCE (Short Form)**  
**PART II - BUDGET DATA**

<u>OBJECT CLASS CATEGORIES</u>	<u>CURRENT APPROVED BUDGET</u> (a)	<u>CHANGE REQUESTED</u> (b)	<u>NEW OR REVISED BUDGET</u> (c)
1. PERSONNEL	\$0.00	\$0.00	\$32,208.00
2. FRINGE BENEFITS	\$0.00	\$0.00	\$13,778.00
3. TRAVEL	\$0.00	\$0.00	\$935.00
4. EQUIPMENT	\$0.00	\$0.00	\$0.00
5. SUPPLIES	\$0.00	\$0.00	\$2,500.00
6. CONTRACTUAL	\$0.00	\$0.00	\$350,000.00
7. CONSTRUCTION	\$0.00	\$0.00	\$0.00
8. OTHER	\$0.00	\$0.00	\$3,000.00
9. TOTAL DIRECT CHARGES	\$0.00	\$0.00	\$402,421.00
10. INDIRECT CHARGES	\$0.00	\$0.00	\$13,336.00
11. TOTAL	\$0.00	\$0.00	\$415,757.00
12. FEDERAL SHARE			
13. NON-FEDERAL SHARE			
14. PROGRAM INCOME			

15. DETAIL ON INDIRECT COSTS

TYPE OF RATE (mark one box)

☐ PROVISIONAL

☐ PREDETERMINED

☐ FINAL

☐ FIXED

RATE \_\_\_\_\_ %

BASE \$ \_\_\_\_\_

TOTAL AMOUNT \$ \_\_\_\_\_

**PART III**  
**PROGRAM NARRATIVE STATEMENT**  
*(Attach additional sheets, if necessary)*

Multi-Site CA V005794-02

Fridley Well Field

New

# FAX

**Phone** 312-886-4071

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**TO:**

Lois Betka  
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**FROM:**

Nile Fellows

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If you have any questions please call me at 651-296-7299.

January , 2000

Mr. William Muno, Director  
Superfund Division  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Re: Multi-Site Cooperative Agreement V005794-02  
Fridley Commons Park Well Field

Dear Mr. Muno:

Enclosed for your consideration is a request to amend the Multi-Site Cooperative Agreement (MSCA) between the Minnesota Pollution Control Agency (MPCA) and the U.S. Environmental Protection Agency (EPA).

This amendment requests new funds for the Fridley Commons Park Well Field Remedial Investigation and Feasibility Study Budget. The MPCA also requests a project/budget period to March 31, 2001 for this amendment.

We appreciate your prompt consideration and approval of this request. If you have any questions regarding this application for funds and the project/budget period, please contact John Allen at (651) 297-5198.

Sincerely,

Timothy K. Scherkenbach  
Manager  
Policy and Planning Division

Enclosures

cc: Lois Betka, U.S. Environmental Protection Agency, Mail Code SR-6J

## **Fridley Commons Park Well Field Project Narrative Statement**

### **I. BACKGROUND**

#### **Site Description**

##### ***Discussion of location***

The Fridley Commons Park Well Field (Site) is an active well field with eight public wells, owned by the city of Fridley (City). The well field serves a population of approximately 29,000. The Site is located within the city of Fridley (City), Anoka County, Minnesota, approximately one mile north-northwest of the intersection of Interstate Highway 694 and Minnesota State Highway 65. The Site is approximately one mile east of the Mississippi River, approximately one mile from the federally designated Mississippi National River Reach and Recreation Area, and approximately 0.2 miles northwest of Moore Lake. The Commons Park well field site provides recreational activities, and land use in the area surrounding the Site is mostly residential, with some areas of commercial and industrial use.

The City owns and operates eight municipal water supply wells and a water treatment plant (City Plant #2) at the Site. Four of the wells (6, 7, 8, and 9) are open to the Prairie du Chien-Jordan (PdCJ) aquifer (Figure 3). Water from all eight wells is blended and treated at Plant #2. A recent state-funded evaluation report has indicated that if the contaminant levels remain the same or increase, the city's blended water will at some point exceed the Maximum Contaminant Level (MCL) on occasions when the four contaminated wells must be used during peak water usage.

##### ***Physical characteristics***

##### ***Site geology***

The municipal wells Nos. 6, 7, 8, and 9, which have been impacted by TCE contamination, are open to the Prairie du Chien Aquifer (PdCJ) Aquifer. The other 4 municipal wells are open to the Mt. Simon-Hinckley aquifer. The fractured, sometimes karsted nature of the Prairie du Chien plays a large role in controlling ground water movement through the aquifer.

The effects of erosion on the Prairie du Chien Group and the Jordan Sandstone include several bedrock valleys in the vicinity of the Site, where the Prairie du Chien and the Jordan have been partially or completely removed by erosion. These buried bedrock valleys can permit fairly direct migration of ground water and contaminants into or out of the aquifer. In addition, the bedrock valleys can affect the confined/unconfined nature of the aquifer, as well as flow gradients and flow directions in the aquifer. The PdCJ is an important aquifer in the region, so pumping effects of the nearby wells are significant with respect to the movement of contaminants through the aquifer. Many wells near the Site are open to the PdCJ Aquifer. Some of these wells are high capacity industrial or municipal wells and may have large radii of influence so that they could produce well interference in the vicinity of the Site.

##### ***Proximity to drinking water supplies***

The other four municipal wells in the Commons Park well field are open to the Mt. Simon-Hinckley Aquifer, which underlies the PdCJ. The integrity of these wells must be maintained to prevent aquifer contamination.

A limited well survey has been conducted in the area and identified wells have been sampled, but the extent and direction of the plume has not yet been identified due to the complexity of the 200-300 feet deep fractured



bedrock aquifer (PdcJ). Several other public water supply wells for other municipalities are located within a four-mile radius of the Site. A few private and many industrial wells also are operated in the area.

#### ***Nature of release, Contaminant type, Affected media***

In February 1984, trichloroethylene (TCE) was detected in City well no. 9. Subsequent testing detected TCE and several other organic chemicals in wells Nos. 6, 7, 8, and 9. The source of this contamination is unknown. The affected media (the Prairie du Chein aquifer) is used for drinking water supply by the City. The four city drinking water supply wells in the Mt. Simon Hinckley have so far not been impacted.

#### ***Past Response Actions***

At the recommendation of the Minnesota Department of Health (MDH), the city of Fridley took well no. 9 out of service in November 1989, due to contamination levels which might cause the water supply to exceed the MCL for TCE. Wells 6, 7, and 8, while at various times indicating contamination from TCE, remain in service and are used primarily during times of peak water usage. The City has continued to monitor the affected wells as required by MDH.

On February 20, 1991, the Fridley Commons Park Well Field site (Site) numbered MN985701309, was placed on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) inventory of potential hazardous waste sites. The Preliminary Assessment (PA), was completed by Minnesota Pollution Control Agency (MPCA) staff and was approved by the EPA on September 20, 1991. A Screening Site Inspection (SSI) was conducted by MPCA staff on November 5 and 6, 1991. The SSI report, was submitted to EPA and approved on July 6, 1992. The SSI recommended the Site for an Expanded Site Inspection (ESI). The Site was added to the State of Minnesota's Permanent List of Priorities, or State Superfund List, in June 1992. The 1996 ESI recommended listing on the NPL and more effort to define the source within the limitations of cost. The site was listed on the NPL in January, 1999.

The MPCA has conducted investigations since the closure of well no. 9 to narrow the range of the contamination source possibilities. The most recent report, Evaluation of Ground Water Contamination, Fridley Commons Park Well Field Site, March 1997, recommended an alternative water supply to be planned for implementation during peaking periods, some longer-term investigative techniques, and additional work to locate the source.

#### ***Response Actions still required***

Peak pumping during high water use in the summer is anticipated to have a high probability of exceedence of the TCE MCL concentrations in the city water distribution system. An alternate water supply may be required during that time. Sufficient RI information exists from several different sources, but needs to be pulled together to provide a clear picture of the site. A FFS is needed to select the alternate water supply design and implementation followed by a Proposed Plan, public meeting, and Record of Decision (ROD).

Periodic examinations of available data and sampling of wells in the area is required to protect public health since little is known about the plume extent and movement.

An exact source or sources of the contamination has not yet been identified. However, the MPCA, at the request of EPA has continued to look for Potential Responsible Parties (PRPs). In December 1999 the MPCA sent out eleven Requests for Information to companies located near the Well Field. The MPCA intends to continue to work with EPA to identify PRPs. However, the possibility exists that proof of PRP liability may never be obtained. If the source is identified, MPCA will take enforcement action to require the appropriate actions

necessary for source cleanup and reimbursement for past actions. It is the belief of the MPCA that the existing threat and confirmed contamination in the aquifer must be addressed with a reasonable RI/FS and ROD, whether or not a PRP can be identified. Therefore, the level of effort identified below is limited to that which is reasonable and cost-effective with which to proceed with the steps required to identify an appropriate remedy.

## **II. STATEMENT OF PURPOSE**

As lead agency for the response actions at the site, the MPCA requests the following through this amendment application for the Site:

- Approval of the scope of work for LRI/FFS.
- Approval of new funding for LRI/FFS.
- Approval of the new project/ budget period.
- Approval of the schedule for LRI/FFS.
- Approval of the budget for LRI/FFS.

## **III. LRI/FFS**

### **Site Specific Statement of Work**

The Statement of Work (SOW) for this application will be for the Limited RI and FFS, through the Proposed Plan and ROD. Estimated costs per task are provided.

A site sign task will be created to provide contacts for obtaining information on activities being conducted at the site and for reporting criminal activities.

### ***Project Team***

Nile Fellows of the MPCA has conducted and continues to conduct coordinated planning of response activities with other State agencies, including the MDH, DNR, and other agencies as appropriate.

Site team members currently include:

Project Manager:	Nile Fellows
Hydrologist:	Pat Lannon
Secretary:	Chantle Andersen
Community Relations Officer:	Stacy Casey
Quality Assurance Officer:	Luke Charpentier

### ***Site-Specific Community Relations Plan***

A Community Relations Plan will be developed by the MPCA and sent to EPA for approval. The MPCA will comply with the community relations requirements described in EPA policy and guidance and in the National Contingency Plan (NCP).

### ***Site-Specific Health and Safety Plan***

The MPCA will have a final Health and Safety Plan in place before starting any field work, providing for the protection of on-site personnel and area residents as appropriate. The plan will comply with OSHA 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response."

### ***Quality Assurance***

The MPCA will comply with the requirements regarding quality assurance described in 40 CFR 31.45 in developing the Quality Assurance Project Plan (QAPP) and sampling plan. Field work will not begin until EPA approves the QAPP. The plan will comply with the requirements regarding split sampling described in section 104(e)(4)(B) of CERCLA, as amended.

### ***Schedule of Deliverables***

CRP  
QAPP  
Draft LRI report to EPA for comment  
Alternatives Array  
Draft FFS report to EPA for comment  
Proposed Plan  
ROD  
Semi-Annual progress reports  
Quarterly Fiscal Status Reports

### ***Approach***

The MPCA will plan, coordinate and conduct the work in a manner consistent with the applicable federal laws and regulations including the NCP, state statutes and rules, the EPA Region 5 Reduced Federal Oversight Policy Statement, the Superfund Memorandum of Agreement between EPA and MPCA, and applicable EPA and MPCA guidance.

The site has been listed on the NPL. The site does not qualify for removal action, however the MPCA and the EPA have agreed that early action is appropriate.

## **IV. STATEMENT OF WORK**

### **FOR FRIDLEY COMMONS PARK WELL FIELD CONTAMINATION SITE Fridley, Anoka County, Minnesota LIMITED REMEDIAL INVESTIGATION AND FOCUSSED FEASIBILITY STUDY**

#### **1. PURPOSE**

The purposes of this limited remedial investigation/focused feasibility study (LRI/FFS) are to:

1. Report on the nature and extent of contamination at the Fridley Commons Park Well Field Contamination site to the extent needed to develop early action remedial alternatives using existing site specific data;
2. Develop and evaluate remedial alternatives for assuring safe drinking water for the City of Fridley residents and for protecting the aquifer resource;
3. Perform additional investigative studies necessary to complete this phase; and

4. Implement recommendations of the Extended Site Investigation and the Evaluation of Ground Water Contamination reports to identify PRPs to the extent reasonable.

The contractor will furnish all necessary personnel, materials, and services needed for, or incidental to, performing the LRI/FFS, except as otherwise specified herein. The contractor will conduct the LRI/FFS in accordance with the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (U.S. EPA, October 1988).

The main objective of this LRI/FFS is:

To assure safe drinking water for the City of Fridley municipal water system and other users of the affected resource.

## 2. SCOPE

The specific LRI/FFS activities to be conducted at the Fridley site are segregated into separate tasks.

- Task 1—Contractor Procurement
- Task 2—Project Planning
- Task 3—Community Relations
- Task 4—Limited RI
  - a) Data Evaluation
  - b) Sample Analysis/Validation
  - c) Risk Assessment
- Task 5—Remedial Investigation Report
- Task 6—Focused Feasibility Study
  - a) Remedial Alternatives Development and Screening
  - b) Detailed Analysis of Alternatives
- Task 7—FFS Report
- Task 8—Proposed Plan
- Task 9—ROD Preparation
- Task 10—Administrative Record
- Task 11—Cooperative Agreement and Contract Management

The MPCA shall specify a schedule of activities and deliverables, a budget estimate, and staffing requirements for each of the tasks which are described below. Pursuant to the R5 reduced oversight policy, the EPA will only review and approve the QAPP and the CRP. The MPCA will submit quarterly Fiscal Status Reports and semi-annual progress reports. The EPA must concur on any ROD. The budget shows costs by activity and operable unit. The final draft LRI/FFS will be submitted to EPA for comment. EPA will address inadequacies and inconsistencies with the NCP, the MPCA will address the concerns, and no resubmittal will be required. A final Proposed Plan will be submitted to EPA for concurrence prior to the opening of the public comment period. The ROD will be submitted to EPA for approval and the state will provide briefings to EPA as necessary.

### Task 1—Contractor Procurement

Upon receipt of authorization of the Cooperative Agreement amendment, the MPCA shall complete the necessary steps and follow the appropriate procedures to procure the services of a contractor to conduct the LRI/FFS for the

site. The MPCA shall direct the contractor to begin planning the specific LRI/FFS activities that will need to be conducted as part of the LRI/FFS.

## **Task 2--Project Planning**

The MPCA's contractor will develop the required project plans to meet the objectives of the LRI/FFS. The project plans will include a detailed work plan, QAPP (if additional sampling is necessary) to include a field sampling plan (FSP); and a health and safety plan if additional field work is required. The MPCA will develop a community relations plan.

### **A. Work Plan Preparation**

The contractor will review existing information (e.g., topographic maps, aerial photographs, data collected as part of the NPL listing process, and data collected as part of any other investigation). A site visit to become familiar with site topography, access routes, and the proximity of potential receptors to site contaminants will be conducted.

As part of project planning, the contractor and the MPCA will meet to discuss the proposed scope of the project and the specific information already available, investigative and analytical activities that may be required, preliminary remedial action objectives and general response actions, potential remedial technologies and the need for or usefulness of treatability studies, potential Applicable or Relevant and Appropriate Requirements (ARARs) associated with the location and contaminants of the site and the potential response actions being contemplated, interim actions, and sequencing of tasks to be completed.

The contractor shall prepare a detailed work plan for the LRI/FFS. The work plan shall include a project description and an outline of the overall technical approach, complete with corresponding personnel requirements, activity schedules consistent with the SMOA time frames (e.g., document review times), deliverable due dates, and budget estimates for each of the specified tasks.

### **B. Health and Safety Plan (HSP)**

The contractor will develop an HSP on the basis of site conditions and intended site work to protect personnel involved in site activities and the surrounding community. The plan will address all applicable regulatory requirements contained in 20 CFR 1910.120(i)(2)—Occupational Health and Safety Administration, Hazardous Waste Operations and Emergency Response, Interim Rule, December 19, 1986; U.S. EPA Order 1440.2—Health and Safety Requirements for Employees Engaged in Field Activities; U.S. EPA Order 1440.3—Respiratory Protection; U.S. EPA Occupational Health and Safety Manual; and U.S. EPA Interim Standard Operating Procedures (September, 1982).

The plan will provide a site background discussion and describe personnel responsibilities, protective equipment, health and safety procedures and protocols, decontamination procedures, personnel training, and type and extent of medical surveillance. The plan will identify problems or hazards that may be encountered and how these are to be addressed. Procedures for protecting third parties, such as visitors or the surrounding community, will also be provided. Standard operating procedures for ensuring worker safety will be referenced and not duplicated in the HSP.

The work plan and corresponding activity plans will be submitted to MPCA, as specified in the contract or as discussed in the initial meeting, for review and approval by MPCA and EPA.

### **Task 3—Community Relations Plan (CRP)**

The MPCA will be primarily responsible for community relations activities at this site. The CRP will be integrated closely with all remedial response activities to ensure community understanding of actions being taken and to obtain community input on LRI/FFS progress.

The MPCA will prepare a community relations plan on how citizens want to be involved in the process based on interviews with community representatives and leaders by state agency staff. The CRP will describe the types of information to be provided to the public and outline the opportunities for community comment and input during the RI/FS. Deliverables, schedule, staffing, and budget requirements will be included in the plan.

As requested by MPCA, the contractor may provide personnel, services, materials, and equipment to assist MPCA in the development and implementation of the community relations program. Community relations activities for the site will include, but may not be limited to, the following:

- Establishment and maintenance of a community information repository(s), one of which will house a copy of the administrative record.
- Preparation and dissemination of news releases, fact sheets, slide shows, exhibits, and other audio-visual materials designed to apprise the community of current or proposed activities.
- Development and upkeep of a mailing list that includes nearby and interested residents, public interest groups, and elected officials.
- Arrangements of briefings, press conferences, workshops, and public and other informal meetings.
- Analysis of community attitudes toward the proposed actions.
- Assessment of the successes and failures of the community relations program to date.
- Preparation of reports and participation in public meetings, project review meetings, and other meetings as necessary for the normal progress of the work.

Deliverables and the schedule for submittal will be identified in the CRP. The CRP and any revisions or additions to the CRP will be submitted to EPA for review and approval.

### **Task 4—Limited Remedial Investigations**

A Limited Remedial Investigation (LRI) will be undertaken utilizing existing data from the site to determine; 1) the magnitude of the problem and 2) to determine if additional field investigations will be needed to fill in data gaps.

#### **A) Data Evaluation**

The contractor will analyze all site investigation data and present the results of the analyses in an organized and logical manner so that the relationships between site investigation results for each medium are apparent. The contractor will prepare a summary that describes (1) the locations, quantities and concentrations of specific chemicals at the site and the ambient levels surrounding the site; (2) the number, locations, and types of nearby

populations and activities and, (3) the potential transport mechanism and the expected fate of the contaminant in the environment. As part of this evaluation, A determination will be made as to whether or not all necessary data has been obtained for the site.

#### **B) Quality Assurance Project Plan (QAPP)**

Additional sampling is not contemplated at this time. However, should data analysis indicate the need for additional data collection, a QAPP to describe all sampling and analyses planned for the site will be prepared. The QAPP should address all types of investigations to be conducted and should include a project description, a project organization chart illustrating the lines of responsibility of the personnel involved in the sampling phase of the project, quality assurance objectives for data such as the required precision and accuracy, completeness of data, representativeness of data, comparability of data, and the intended use of collected data, sample custody procedures during sample collection and in the laboratory, and as part of the final evidence files, the type and frequency of calibration procedures for field and laboratory instruments, internal quality control checks, and quality assurance performance audits and system audits, preventive maintenance procedures and schedule and corrective action procedures for field and laboratory instruments, specific procedures to assess data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters, and data documentation and tracking procedures. Standard operating procedures for QA/QC that have been established by EPA will be referenced and not duplicated in the QAPP.

#### **C) Sample Analysis/Validation**

If additional monitoring wells are determined to be necessary, the contractor will install monitoring wells to aid in the characterization of the site. Ground water sample analyses will be collected from these wells and monitoring wells currently in use.

Site investigation activities will follow the plans developed in Task 1. Strict chain-of-custody procedures will be followed and all sample locations will be identified on a site map. The contractor will provide management and QC review of all activities conducted under this task.

The contractor will develop a data management system including field logs, sample management and tracking procedures, and document control and inventory procedures for both laboratory data and field measurements to ensure that the data collected during the investigation are of adequate quality and quantity to support the risk assessment and the FS. Collected data should be validated at the appropriate field or laboratory QC level to determine whether it is appropriate for its intended use. Task management and quality controls will be provided by the contractor. The EPA Contract Lab Program (CLP) should be considered for use as appropriate for analysis of field samples. MPCA will have primary responsibility for ensuring that validation of all data is performed in accordance with the approved QAPP for the site. The contractor will incorporate information from this task into the LRI Report.

#### **D) Field Sampling Plan (FSP)**

If it is determined that additional sampling is necessary, the contractor shall prepare a field sampling plan (FSP) that includes an outline of all necessary activities to obtain additional site data. It will contain an evaluation explaining what additional data are required to adequately characterize the site, conduct a baseline risk assessment, and support the evaluation of remedial technologies in the FS. The FSP should clearly state sampling objectives; necessary equipment; sample types, locations, and frequency; analyses of interest; and a schedule stating when events will take place and when deliverables will be submitted. This document should be submitted as part of the QAPP.



## **E) Risk Assessment**

### **1. Baseline Risk Assessment**

The contractor shall conduct a baseline risk assessment to assess the potential human health and environmental risks posed by the site in the absence of any remedial action in accordance with current guidance and data bases. This effort will involve four components:

- **Contaminant Identification.** The contractor will review available information on the hazardous substances present at the site and identify the major contaminants of concern. Contaminants of concern should be selected based on their intrinsic toxicological properties because they are present in large quantities, and/or because they are currently in, or potentially may migrate into, critical exposure pathways (e.g., drinking water).
- **Exposure Assessment.** The contractor will identify actual or potential exposure pathways, characterize potentially exposed populations, and evaluate the actual or potential extent of exposure.
- **Toxicity Assessment.** The contractor will provide a toxicity assessment of those chemicals found to be of concern during site investigation activities. This will involve an assessment of the types of adverse health or environmental effects associated with chemical exposures, the relationships between magnitude of exposures and adverse effects, and the related uncertainties for contaminant toxicity, (e.g., weight of evidence for a chemical's carcinogenicity).
- **Risk Characterization.** The contractor will integrate information developed during the exposure and toxicity assessments to characterize the current or potential risk to human health and/or the environment posed by the site. This characterization should identify the potential for adverse health or environmental effects for the chemicals of concern and identify any uncertainties associated with contaminant(s), toxicity, and/or exposure assumptions.

### **2. Ecological Risk Assessment**

There is no need for an ecological risk assessment at this time as ground water is the medium of concern. Surface water contamination and soil contamination have not been identified and there are no identified receptors. The risk assessment will be submitted as part of the LRI Report.

#### **Task 5—Limited Remedial Investigation Report**

The contractor will present the results of Tasks A through C in a LRI report. Support data, information, and calculations will be included in appendices to the report. The MPCA will submit final draft LRI report to EPA for review. Once comments on the final draft LRI report are received from EPA, the MPCA will address the concerns in a revised LRI report.

#### **Task 6—Focus Feasibility Study**

Based on the results of the LRI a Focused Feasibility Study (FFS) will be conducted. The FFS will evaluate alternative drinking water remedies.



## **A) Remedial Alternatives Development and Screening**

### **1. Development and Screening of Alternatives**

The contractor will develop alternatives that will provide adequate protection of human health and the environment. The potential alternatives shall encompass, as appropriate, a range of alternatives in which treatment is used to reduce the toxicity, mobility, or volume of wastes but vary in the degree to which long-term management of residuals or untreated waste is required, one or more alternatives involving containment with little or no treatment; and a no-action alternative. Alternatives that involve minimal efforts to reduce potential exposures (e.g., site fencing, deed restrictions) should be presented as "limited action" alternatives.

The following steps will be conducted to determine the appropriate range of alternatives for this site:

- **Establish Remedial Action Objectives and General Response Actions.**

Based on existing information, site-specific remedial action objectives to protect human health and the environment should be developed. The objectives shall specify the contaminant(s) and media of concern, the exposure route(s) and receptor(s), and an acceptable contaminant level or range of levels for each exposure route (i.e., preliminary remediation goals).

Preliminary remediation goals should be established based on readily available information (e.g., Rfda) or chemical-specific ARARs (e.g., MCLs). The contractor shall meet with MPCA to discuss the remedial action objectives for the site. As more information is collected during the RI, the contractor, in consultation with MPCA, will refine remedial action objectives as appropriate.

General response actions will be developed for each medium of interest defining contaminant, treatment, excavation, pumping, or other actions, singly or in combination to satisfy remedial action objectives. Volumes or areas of media to which general response actions may apply shall be identified, taking into account requirements for protectiveness as identified in the remedial action objectives and the chemical and physical characteristics of the site.

- **Identify and Screen Technologies.**

Based on the developed general response actions, hazardous waste treatment technologies shall be identified and screened to ensure that only those technologies applicable to the contaminants present, their physical matrix, and other site characteristics will be considered. This screening will be based primarily on a technology's ability to effectively address the contaminants at the site, but will also take into account a technology's implementability and capital and operations and maintenance cost.

The contractor will select representative process options, as appropriate, to carry forward into alternative development. The contractor will identify the need for treatability testing (as described under Task 7) for those technologies that are probable candidates for consideration during the detailed analysis.

- **Configure and Screen Alternatives.**

The potential technologies and process options will be combined into media-specific or site-wide alternatives. The developed alternatives shall be defined with respect to size and configuration of the representative process

options; time for remediation; rates of flow or treatment; spatial requirements; distances for disposal; and required permits, imposed limitations, and other factors necessary to evaluate the alternatives.

If many distinct, viable, options are available and developed, a screening of alternatives will be conducted to limit the number of alternatives that undergo the detailed analysis and to provide consideration of the most promising process options. The alternatives shall be screened on a general basis with respect to their effectiveness, implementability, and cost. The contractor will meet with MPCA to discuss which alternatives will be evaluated in the detailed analysis and to facilitate the identification of Applicable or Relevant and Appropriate Requirements.

## **2. Alternatives Array Document**

The contractor shall prepare an alternatives array document based on discussions with the MPCA. The MPCA will submit the alternative array document to EPA for review and identification of Federal ARARs. Upon receipt of Federal ARARs, the MPCA shall meet with EPA to finalize ARARs and alternatives for detailed analysis for the Site.

### **B. Detailed Analysis of Alternatives**

Upon receipt of the ARAR determination information, the contractor will conduct a detailed analysis of alternatives which will consist of an individual analysis of each alternative against a set of evaluation criteria and a comparative analysis of all options against the evaluation criteria with respect to one another.

The evaluation criteria are as follows:

**Overall Protection of Human Health and the Environment** addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

**Compliance with ARARs** addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes and/or provide grounds for invoking a waiver.

**Long-Term Effectiveness and Permanence** refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.

**Reduction of Toxicity, Mobility, or Volume Through Treatment** is the anticipated performance of the treatment technologies a remedy may employ.

**Short-Term Effectiveness** addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

**Implementability** is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

**Cost** includes estimated capital and operation and maintenance costs, and net present worth costs.

**Support Agency Acceptance** addresses the technical or administrative issues and concerns the support agency may have regarding each alternative.

**Community Acceptance** addresses the issues and concerns the public may have to each of the alternatives.

The individual analysis shall include: (1) a technical description of each alternative that outlines the waste management strategy involved and identifies the key AKARs associated with each alternative; and (2) a discussion that profiles the performance of that alternative with respect to each of the evaluation criteria. A table summarizing the results of this analysis shall be prepared. Once the individual analysis is complete, the alternatives will be compared and contrasted to one another with respect to each of the evaluation criteria.

#### **Task 7--FFS Report**

The contractor will present the results of Tasks 9 and 10 in a FFS report. Support data, information, and calculations will be included in appendices to the report. The MPCA will submit a draft LRI/FFS report to EPA for review. Once EPA comments on the draft FS have been received, the MPCA will prepare a revised FFS report.

#### **Task 8--Proposed Plan**

The MPCA will develop a proposed plan for the site based on the results of the FFS report. The proposed plan will include the MPCA's preferred alternative and will be prepared in accordance with current EPA guidance. The preferred alternative will be protective of human health and the environment, will attain ARARs identified for the site or provide the basis for invoking a waiver, will be cost effective, and will utilize treatment technologies and permanent solutions to the maximum extent practicable.

The MPCA will submit a draft proposed plan to EPA for review prior to issuing the document for public comment and will present a briefing on the proposed plan to EPA's management. Upon receipt of EPA's comments on the draft plan, the MPCA will incorporate the comments into the plan and provide EPA with the revised proposed plan for final review and approval. If necessary, the MPCA will meet with EPA to discuss the preferred alternative.

Upon issuance of the proposed plan for public comment, the MPCA will publish a newspaper notice announcing the availability of the LRI/FFS and proposed plan in the public repository. The MPCA will hold a public meeting on the proposed plan and solicit comments from the public. The entire public meeting will be recorded by a court reporter.

#### **Task 9--Record of Decision Preparation**

Following receipt of public comments on the proposed plan, the MPCA will prepare a draft Record of Decision (ROD) which will include the responsiveness summary and the index for the administrative record for the site. The ROD will be prepared in accordance with current EPA guidance. The MPCA will submit the draft ROD to EPA and other appropriate parties for review and comment and will present a briefing on the ROD to EPA's management. The MPCA will incorporate comments and submit the final ROD for signature to EPA. Once the ROD is finalized, the MPCA will publish a newspaper notice of the availability of the final ROD and will make the ROD available to the public and provide a copy of the final ROD to the Site repository.

#### **Task 10--Administrative Record**

During the R/FS phase, the MPCA will establish an site Administrative Record (AR) for the selection of the response actions in accordance with Section 113 of CERCLA. The AR is a subset of the site file which contains all

the documents that were considered or relied upon in the selection of remedy for response actions, and acts as a vehicle for public participation. The MPCA will be responsible for establishing the site AR and ensuring that all documents, whether they support or oppose the selected action, forming the basis for the selection of the response action are available to the public at or near the site prior to the commencement of the public comment period, at a minimum.

The MPCA shall be responsible for proper compilation and maintenance of the AR file which is crucial because under Section 113 (j) of CERCLA, judicial review of issues concerning the adequacy of any response action is limited to the information contained in the AR. The MPCA shall compile and maintain the AR in accordance with the Final Guidance on Administrative Records for Selecting CERCLA Response Actions (December 1990). The MPCA shall submit a draft AR index to EPA for review and comments.

#### **Task 11--Cooperative Agreement and Contract Management**

The MPCA shall conduct all actions necessary to assure that both agency and contractor activities are within the Statement of Work, schedule and budget of the CA. At a minimum, the MPCA shall:

##### **A. Contract Management**

The MPCA shall perform contract management activities, including the following:

oversceing any field work, as appropriate;

tracking contractor progress and deliverables against the approved CA schedule;

evaluating the quality of contractor work and deliverables; and

- reviewing contractor invoices, expenditure reports and monthly progress reports. The MPCA shall ensure that the contractor monthly progress reports contain information on the following items, at a minimum:
  - Status of work and the progress to date. Percentage of the work completed and the status of the schedule.
  - Difficulties encountered and corrective actions to be taken.
  - The activities in progress.
  - Activities planned for the next reporting period.
  - Any changes in key personnel.
  - Actual expenditures (including fee) and direct labor hours for the reporting period and for the cumulative term of the project.
  - Projection of expenditures needed to complete the project and an explanation of significant departures from the original budget estimate.

##### **B. Cooperative Agreement**

The MPCA shall perform Cooperative Agreement management activities, including the following:

- Tracking CA deliverables against the approved CA schedule.